

DETAILED ACTION

1. This Office Action is responsive to communication filed January 8, 2009.
2. Claims 1 – 23 are pending in this Office Action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2001/0022624 issued to Tanaka et al., (hereinafter "Tanaka") in view of U.S. Pub. No. 2004/0059705 issued to Wittke et al., (Hereinafter "Wittke").

Regarding claims (1, 7 and 13), Tanaka discloses an image classification apparatus for classifying image data sets added with accompanying information including information items, the image classification apparatus comprising:

A server, the server including (see Fig. 7 and page 7, [0082] – [0083]):
accompanying information obtaining device for obtaining the accompanying information from the image data sets (see page 2, [0016]: *a method of obtaining in mage information is disclosed*); and
image classification device for classifying the image data groups having a hierarchical structure of the information items according to the specified

sets into specified priority (see page 7, [0091] and Fig.10: *image classification based on tree structure is disclosed*), wherein the image data sets are stored in a folder associated with information item of the lowest level in the hierarchical structure (see Figs. 8, 10 and page 7, [0085] - [0086] and [0091] - [0092]: *on fig. 8, 002BIRTHDAY is a folder on the lowest level of the hierarchy that stores the image dataset (Dscf0001.jp - Dsc0004.jp) and on fig.10, AperturePriority is a folder on the lowest level of the hierarchy that stores the image dataset (StrobeAuto.jp and StrobeOff.jp)*).

Tanaka does not explicitly teach specification of image

Wittke discloses information item specification device for specifying a portion of or all of the information items of the accompanying information to be used for image classification (see page 17, [0303]: *“the software driving/enabling the interfaces for specification are commonly available”*), and for specifying priority among the specified information items (*see Fig. 49 and page 21, [0354] – [0356]: Wittke discloses prioritized information and ranked tree nodes which is interpreted as hierarchical structure*).

It would have been obvious to one of ordinary skills at the data processing art at the time of present invention to combine the cited references, because Wittke's teaching of specification device for specifying priority information would have allowed Tanaka's system to efficiently utilize expertise in the characterization and delivery of essentially topical knowledge while customizing it to specific individuals as suggested by Wittke on page 5, paragraph 75.

5. Claims 2 – 6, 8 – 12 and 14 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Wittke and further in view of U.S. Pub. No. 2003/0018802 issued to Romanik et al., (Hereinafter "Romanik").

Regarding claims 2, 8 and 14, Tanaka and Wittke teach the claimed subject matter as discussed in claims 1, 7 and 13 respectively. Tanaka or Wittke does not explicitly disclose specification device specifies the information items to be used for image classification as claimed.

Romanik discloses the image classification apparatus according to Claim I, wherein the accompanying information includes classification condition information representing a set of the information items to be used for image classification (see page 3, [0026]: *there are many conditions under which image 305 must be put into queue*) and the information item specification device specifies the information items to be used for image classification according to the classification condition information (see page 2, [0023]: *the image along with an operation to specify additional attributes. These attributes can include, but are not limited to, specifying what forms of processing the client transfer mechanism can apply to the image*).

It would have been obvious to one of ordinary skills at the data processing art at the time of present invention to combine the cited references, because Romanik's teaching of specification information regarding image would have allowed Tanaka and Wittke's system to classify images into different classes. These classes simplify the searching or locating a particular image.

Regarding claims 3, 9 and 15, Tanaka discloses the image classification apparatus according to Claim 2, wherein the accompanying information includes at least one of items comprising time and date of photography, a photography condition, a photography location, a size of an image, the type of a subject, the name of the subject, the number of objects as the subject, an event, and a comment, as the information items thereof (*see Fig. 1 step 16*).

Regarding claims 4, 10 and 16, Tanaka discloses the image classification apparatus according to Claim 1, wherein the accompanying information includes classification condition information representing a combination of the information items to be used for image classification and the priority thereof (see Fig.8: *the image could be classify either by title, white balance or date*), and

the information item specification device specifies the information items to be used for image classification and the priority thereof, according to the classification condition information (see page 8, [0103]: *a priority is disclosed*).

Regarding claims 5, 11 and 17, Tanaka discloses the image classification apparatus according to Claim 4, wherein the accompanying information includes at least one of items comprising time and date of photography, a photography condition, a photography location, a size of an image, the type of a subject, the name of the subject, the number of objects as the subject, an event, and a comment, as the information items thereof (*see Fig. 1 step 16*).

Regarding claims 6, 12 and 18, Tanaka discloses the image classification apparatus according to Claim 1, wherein the accompanying information includes at least one of items comprising time and date of photography, a photography condition, a photography location, a size of an image, the type of a subject, the name of the subject, the number of objects condition, a photography location, a size of an image, the type of a subject, the name of the subject, the number of objects as the subject, an event, and a comment, as the information items thereof (*see Fig. 1 step 16*).

6. Claims 19 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Wittke and further in view of U.S. Patent No.6,012,069 issued to Hiroshi Shibazak (hereinafter "Shibazak").

Regarding claims 19 and 20, Tanaka and Wittke discloses the claimed subject matter as discussed in claims 1 and 13 respectively. Tanaka or Wittke does not explicitly disclose groups having a plurality of layers as claimed.

Shibazak discloses wherein the hierarchical structure of each of the groups has a plurality of layers (see Fig.12),

wherein a lower layer in the hierarchical structure is associated with a group having a lower order of priority Fig.12 and column 14, lines 39 – 40: *"higher priorities are allocated to upper group"; implicitly, lower group/lower layer are associated with the lower priority. See also column 14, lines 65 – 67*); and

wherein an image data set is classified into a group in the lowest layer of the hierarchical structure, the lower layer being a layer corresponding to the information item that has the lowest order of priority among the information items included in the accompanying information (*see column 14, lines 34 – 40 and lines 63 – 64*).

It would have been obvious to one of ordinary skills at the data processing art at the time of present invention to combine the cited references, because Shibazak's teaching of groups having a plurality of layers would have improved Tanaka and Romanik's system by enabling a user to efficiently retrieve an image that meets the user's ambiguous requirements.

Regarding claim 21, Shibazak discloses the image classification apparatus of claim 19, wherein the image classification device automatically creates the groups having the hierarchical structure of the specified information items according to the specified priority (*column 13, lines 11 – 15*).

Regarding claim 22, Shibazak discloses the image classification apparatus of claim 1, wherein the information item is arbitrarily designated by a user (*column 1, lines 61 – 65*).

Regarding claim 23, Shibazak discloses the image classification apparatus of claim 19, wherein the hierarchical structure has a plurality of layers (Fig. 12 is a hierarchical structure with plurality of layers), and wherein each of the plurality of layers

is associated with one specified information item, each of said specified information items being associated with the priority (column 14, lines 34 – 36),

wherein each of the layers of the hierarchical structure is associated with a different priority (Fig. 14 and column 14, lines 49 – 50), and

wherein the image classification device classifies the image data sets into groups based on the priority associated with each of said specified information items (column 14, lines 38 – 40).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2001/0022624 issued to Tanaka et al., (hereinafter “Tanaka”) in view of U.S. Pub. No. 2003/0018802 issued to Romanik et al., (Hereinafter “Romanik”).

Regarding claims (1, 7 and 13), Tanaka discloses an image classification apparatus for classifying image data sets added with accompanying information including information items, the image classification apparatus comprising:

A server, the server including (see Fig. 7 and page 7, [0082] – [0083]):

accompanying information obtaining device for obtaining the accompanying information from the image data sets (see page 2, [0016]: *a method of obtaining in mage information is disclosed*); and

image classification device for classifying the image data groups having a hierarchical structure of the information items according to the specified sets into specified priority (see page 7, [0091] and Fig.10: *image classification based on tree structure is disclosed*), wherein the image data sets are stored in a folder associated with information item of the lowest level in the hierarchical structure (see Figs. 8, 10 and page 7, [0085] - [0086] and [0091] - [0092]: *on fig. 8, 002BIRTHDAY is a folder on the lowest level of the hierarchy that stores the image dataset (Dscf0001.jp - Dsc0004.jp) and on fig.10, AperturePriority is a folder on the lowest level of the hierarchy that stores the image dataset (StrobeAuto.jp and StrobeOff.jp).*

Tanaka does not explicitly teach specification device as claimed.

Romanik discloses information item specification device for specifying a portion of or all of the information items of the accompanying information to be used for image classification (see page 5, [0042]: *"The image can also be divided into multiple windows to specify those regions that contain desired information"*), and for specifying priority among the specified information items (see page 6, [0047]: *some images are more important or more desired than other images, this system can prioritize and reduce the least important images first*).

It would have been obvious to one of ordinary skills at the data processing art at the time of present invention to combine the cited references, because Romanik's

teaching of specification information regarding image would have allowed Tanaka's system to classify images into different classes. These classes simplify the searching or locating a particular image.

Regarding claims 2, 8 and 14, Romanik discloses the image classification apparatus according to Claim 1, wherein the accompanying information includes classification condition information representing a set of the information items to be used for image classification (see page 3, [0026]: *there are many conditions under which image 305 must be put into queue*) and

the information item specification device specifies the information items to be used for image classification according to the classification condition information (see page 2, [0023]: *the image along with an operation to specify additional attributes. These attributes can include, but are not limited to, specifying what forms of processing the client transfer mechanism can apply to the image*).

Regarding claims 3, 9 and 15, Tanaka discloses the image classification apparatus according to Claim 2, wherein the accompanying information includes at least one of items comprising time and date of photography, a photography condition, a photography location, a size of an image, the type of a subject, the name of the subject, the number of objects as the subject, an event, and a comment, as the information items thereof (*see Fig. 1 step 16*).

Regarding claims 4, 10 and 16, Tanaka discloses the image classification apparatus according to Claim 1, wherein the accompanying information includes classification condition information representing a combination of the information items to be used for image classification and the priority thereof (see Fig.8: *the image could be classify either by title, white balance or date*), and

the information item specification device specifies the information items to be used for image classification and the priority thereof, according to the classification condition information (see page 8, [0103]: *a priority is disclosed*).

Regarding claims 5, 11 and 17, Tanaka discloses the image classification apparatus according to Claim 4, wherein the accompanying information includes at least one of items comprising time and date of photography, a photography condition, a photography location, a size of an image, the type of a subject, the name of the subject, the number of objects as the subject, an event, and a comment, as the information items thereof (*see Fig. 1 step 16*).

Regarding claims 6, 12 and 18, Tanaka discloses the image classification apparatus according to Claim 1, wherein the accompanying information includes at least one of items comprising time and date of photography, a photography condition, a photography location, a size of an image, the type of a subject, the name of the subject, the number of objects condition, a photography location, a size of an image, the type of

a subject, the name of the subject, the number of objects as the subject, an event, and a comment, as the information items thereof (*see Fig. 1 step 16*).

9. Claims 19 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Romanik and further in view of U.S. Patent No.6,012,069 issued to Hiroshi Shibazak (hereinafter "Shibazak").

Regarding claims 19 and 20, Tanaka and Romanik disclose the claimed subject matter as discussed in claims 1 and 13 respectively. Tanaka or Romanik does not explicitly disclose groups having a plurality of layers as claimed.

Shibazak discloses wherein the hierarchical structure of each of the groups has a plurality of layers (see Fig.12),

wherein a lower layer in the hierarchical structure is associated with a group having a lower order of priority Fig.12 and column 14, lines 39 – 40: *"higher priorities are allocated to upper group"; implicitly, lower group/lower layer are associated with the lower priority. See also column 14, lines 65 – 67*); and

wherein an image data set is classified into a group in the lowest layer of the hierarchical structure, the lower layer being a layer corresponding to the information item that has the lowest order of priority among the information items included in the accompanying information (*see column 14, lines 34 – 40 and lines 63 – 64*).

It would have been obvious to one of ordinary skills at the data processing art at

the time of present invention to combine the cited references, because Shibazak's teaching of groups having a plurality of layers would have improved Tanaka and Romanik's system by enabling a user to efficiently retrieve an image that meets the user's ambiguous requirements.

Regarding claim 21, Shibazak discloses the image classification apparatus of claim 19, wherein the image classification device automatically creates the groups having the hierarchical structure of the specified information items according to the specified priority (*column 13, lines 11 – 15*).

Regarding claim 22, Shibazak discloses the image classification apparatus of claim 1, wherein the information item is arbitrarily designated by a user (*column 1, lines 61 – 65*).

Regarding claim 23, Shibazak discloses the image classification apparatus of claim 19, wherein the hierarchical structure has a plurality of layers (Fig. 12 is a hierarchical structure with plurality of layers), and wherein each of the plurality of layers is associated with one specified information item, each of said specified information items being associated with the priority (*column 14, lines 34 – 36*),

wherein each of the layers of the hierarchical structure is associated with a different priority (Fig. 14 and *column 14, lines 49 – 50*), and

wherein the image classification device classifies the image data sets into groups based on the priority associated with each of said specified information items (column 14, lines 38 – 40).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRED I. EHICHIOYA whose telephone number is (571)272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre M. Vital can be reached on 571-272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Fred I. Ehichioya/
Examiner, Art Unit 2156